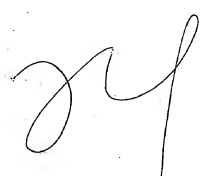
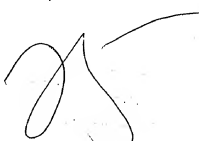



CLAIMS:

- Sub-B1
1. A method for attempting to provoke narrowing of the upper or lower airways in a subject comprising the steps of (a) causing the subject to inhale into the airways an effective amount of a substance capable of altering the osmolarity of airway surface liquid in the subject, which substance is in the form of a dispersible dry powder containing an effective proportion of particles of a respirable size, and (b) measuring in the subject a parameter indicative of the resistance to air flow of the subject's airways.
2. A method as claimed in claim 1 in which the subject is caused to inhale the substance into the airways of the lung.
3. A method as claimed in claim 1 in which the subject is caused to inhale the substance into the airways of the nose.
4. A method as claimed in claim 1 in which the substance is selected from the group comprising mineral salts, sugars and sugar alcohols.
5. A method as claimed in claim 4 in which the substance is selected from the group comprising salts of sodium or potassium, hexose and pentose sugars and their corresponding sugar alcohols.
6. A method as claimed in claim 5 in which the substance is selected from the group comprising sodium chloride, potassium chloride, mannitol and dextrose.
7. A method as claimed in claim 1 in which an effective quantity of the dry particles have a maximum dimension of seven microns.
- Sub-B2
8. A method as claimed in claim 1 in which the proportion of the particles in the respirable range is at least 10% by weight of the substance, preferably at least 25%, more preferably at least 40% and most preferably at least 50%.
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9. A method as claimed in claim 1 in which the parameter indicative of airway narrowing that is measured comprises measuring the forced expiratory volume in 1 second (FEV₁).
10. A method as claimed in claim 1 in which the substance is packaged in a rupturable hard capsule.
11. A method as claimed in claim 10 in which the capsule contains from 1 to 100 mg of the substance, preferably 5 to 40 mg.
- Sub B3 10 12. A method for increasing mucociliary clearance or inducing sputum comprising the step of causing a subject to inhale into his or her airways an effective amount of a substance capable of altering the osmolarity of airway surface liquid, the substance being in the form of a
- 15 dispersible dry powder containing an effective proportion of particles of a respirable size.
13. A method as claimed in claim 12 in which the subject is caused to inhale the substance into the airways of the lung.
- 20 14. A method as claimed in claim 12 in which the subject is caused to inhale the substance into the airways of the nose.
15. A method as claimed in claim 12 in which the substance is selected from the group comprising mineral
- 25 salts, sugars and sugar alcohols.
16. A method as claimed in claim 15 in which the substance is selected from the group comprising salts of sodium or potassium, hexose and pentose sugars and their corresponding sugar alcohols.
- 30 17. A method as claimed in claim 16 in which the substance is selected from the group comprising sodium chloride, potassium chloride, mannitol and dextrose.
18. A method as claimed in claim 12 in which an effective quantity of the dry particles have a maximum
- 35 dimension of seven microns.
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- Sub
B4
19. A method as claimed in claim 12 in which the proportion of the particles in the respirable range is at least 10% by weight of the substance, preferably at least 25%, more preferably at least 40% and most preferably at least 50%.
20. A method as claimed in claim 12 in which the substance is packaged in a rupturable hard capsule.
21. A method as claimed in claim 20 in which the capsule contains from 1 to 100 mg of the substance, preferably 5 to 40 mg.
22. A rupturable container containing an effective quantity of a substance capable of altering the osmolarity of airway surface liquid in a subject, the substance being in the form of a dispersible dry powder containing an effective proportion of particles of a respirable size.
23. A rupturable container as claimed in claim 22 in which the container is a hard capsule.
24. A rupturable container as claimed in claim 23 in which the hard capsule is made of gelatine.
25. A rupturable container as claimed in claim 22 in which the container contains from 1 to 100 mg of the substance, preferably 5 to 40 mg.
26. A rupturable container as claimed in claim 22 in which at least 10% by weight of the particles are in the respirable range, preferably at least 25%, more preferably at least 40% and most preferably at least 50%.
27. A rupturable container as claimed in claim 22 in which the respirable particles have a maximum dimension of seven microns.
28. A rupturable container as claimed in claim 22 in which the substance is selected from the group comprising mineral salts, sugars and sugar alcohols.
29. A rupturable container as claimed in claim 28 in which the substance is selected from the group comprising
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salts of sodium or potassium, hexose and pentose sugars and their corresponding sugar alcohols.

30. A rupturable container as claimed in claim 29 in which the substance is selected from the group comprising
- 5 sodium chloride, potassium chloride, mineral and dextrose.